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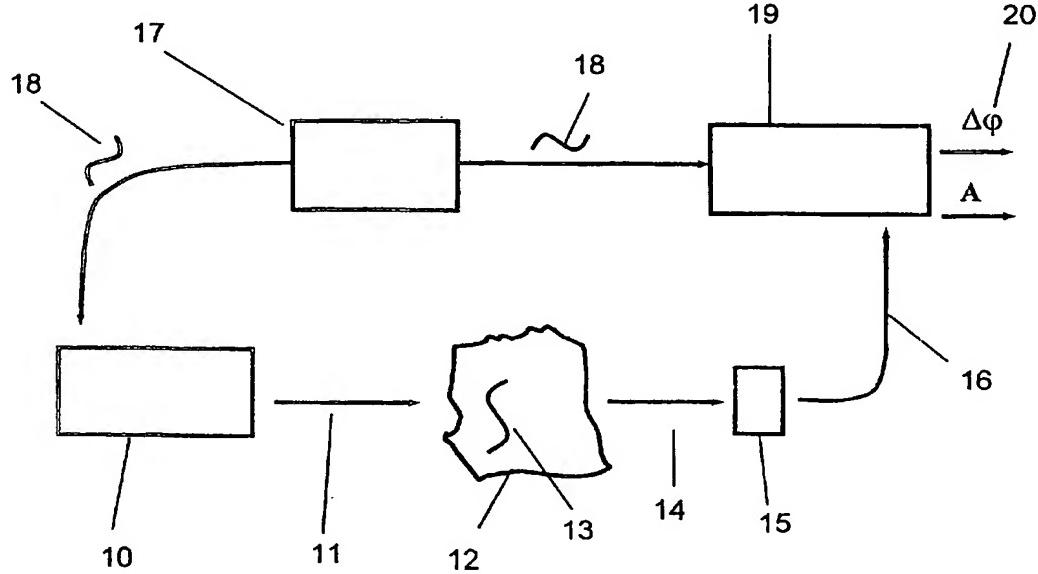
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(54) Title: METHOD AND APPARATUS FOR IMAGING THROUGH SCATTERING OR OBSTRUCTING MEDIA



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(57) Abstract: Method and system for determining the optical temporal response of a medium (12) to a short optical pulse excitation, by sending light (11) that comprises spectral frequencies which make up the Fourier Transform of the short pulse to be emulated through the medium. The relative amplitude and phase change (20) of each of the spectral components light (14) exiting the medium is determined with respect to that of the illuminating light source and the spectral response of the medium is obtained from the relative amplitude and phase change. An inverse Fourier Transform is then computationally performed on the spectral response to obtain the temporal response of the medium to the emulated short pulse.